

C3
cont.
polyvinyl alcohol;

alginate;

a soluble gum.

REMARKS

The specification has been amended to include the proper U.S. patent on page 3 of the disclosure. This U.S. patent is the same as that cited as a primary reference in the office action.

Claims 2 to 4, 6, 8 to 10, 12 and 13 stand objected to as dependent claims which improperly start with an "A". The objected to claims have either been cancelled or amended to overcome this rejection.

Claims 3, 4, 9 and 13 stand rejected under 35 C.F.R. 112, second paragraph. The amendments contained hereinabove to these claims overcome this rejection.

Claims 1 to 3, 5 to 9 and 11 to 13 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of U.S. Patent 6187347. Submitted herewith is a terminal disclaimer in compliance with 37 CFR 1.321(c) with respect to the '347 patent. It is submitted that this terminal disclaimer provided herewith overcomes the basis of this rejection.

Claims 1 to 3 have been rejected under 35 U.S.C. 102(f) as being anticipated by the prior U.S. Patent 6187347 to Patterson et al. These claims have been cancelled without prejudice.

Lastly, claims 1, 2, 5 to 9, 11 to 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Olson in view of Levine, Burgeni, Eberl and Masci. The Examiner has taken the position that Olson discloses the combination of tantalum oxide and iron oxide

for stopping bleeding of wounds and that the powder can be moisturized with agents.

It is with this characterization that the undersigned takes issue.

The Olson reference discloses tantalum oxide composition which is intended as a wound dressing. However, there are several distinguishing aspects of the Olson compound vis-à-vis the present invention. The most significant distinction is that the tantalum oxide operates entirely differently to stop blood flow. The tantalum oxide composition is completely hydrophobic. As such, it must depend upon a passive physical filtration to block the flow of blood. The relatively small size of the tantalum oxide particles on the order of from 0.1 to 6.0 microns is required so that this fine tantalum oxide powder will form a paste when mixed with blood flowing from a wound which allows the inert or passive powder to remain in place over the wound to form a paste sieve.

The present invention, being hydrophilic, acts substantially differently by simultaneously acting, when in contact with blood, as follows:

1. Ionic components immediately bind to the negative and positive charges of the proteins of the wound permitting the artificial scab to form and remain attached to the wound without the need for a separate carrier paste;
2. Ferrate interacts with the water of the blood to form intermediaries and to serve as a molecular "glue" between the ion exchange resin particles; and
3. The ion exchange resin vigorously begins absorbing water and swelling until all of the water is completely absorbed thus solidifying the mass into an artificial scab over the wound.

Based upon the foregoing, it is submitted that this case is in condition for allowance and same is respectfully requested. However, if Examiner Choi finds any reason whatsoever not to comply with the request to allow claims, he is requested to

contact the undersigned directly by telephone to conduct a telephone interview prior to issuing any further office actions.

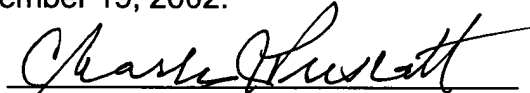
Respectfully submitted,



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CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing is being deposited in the U.S. mail, first class postage paid, addressed to the Commissioner of Patents and Trademarks, Box Fee Amendment, Washington, D.C. 20231, this December 19, 2002.



Charles J. Prescott

Version with markings to show changes made

6. (amended) The [A] method of arresting the flow of blood as set forth in Claim 5, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;
oxyacid salts of transition elements;
halogen oxyacids; and
alkali and alkaline oxides, peroxides and superoxides.

8. (amended) The [A] hemostatic agent as set forth in Claim 7, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;
oxyacid salts of transition elements;
halogen oxyacids; and
alkali and alkaline oxides, peroxides and superoxides.

9. (amended) A hemostatic agent as set forth in Claim 7, wherein said hydrophilic proton donor [is taken from the group that] includes:

a cation exchange resin;
an acid producing salt; and
an organic acid.

10. (amended) The [A] hemostatic agent as set forth in Claim 7, further comprising:

a solid desiccant combined with said oxyacid salt and said hydrophilic proton donor material, said solid desiccant further accelerating blood clotting by absorbing water in the blood.

12. (amended) The [A] hemostatic agent as set forth in Claim 11, wherein said oxyacid salt is taken from the group consisting of:

alkali and alkaline salts;
oxyacid salts of transition elements;
halogen oxyacids; and
alkali and alkaline oxides, peroxides and superoxides.

13. (amended) The [A] hemostatic agent as set forth in Claim 12, wherein said hydrophilic polymer material [is taken from the group that] includes:

carboxy methylcellulose;
polyvinyl alcohol;
alginate;
[gum aerobic; and]
[all] a soluble gum[s].

In U.S. Patent 4,616,644, Saferstein, et al. teaches the use of an adhesive bandage with high molecular weight polyethylene oxide applied to the surface of the perforated plastic film wound release cover of the bandage to arrest blood flow from minor cuts. Yet another hemostatic agent including a carrier in the shape of a flake or fiber having thrombin and Factor XIII affixed thereto is taught by Sakamoto in U.S. Patent 4,655,211. The use of an ultra-pure, clean thrombin solution as a hemostatic agent is taught in U.S. Patent 5,525,498 invented by Boctor. Two recent patents invented by Pruss, et al., U.S. 5,643,596 and 5,645,849 both teach the use of hemostatic dressings which incorporate thrombin and epsilon aminocaproic acid (EACA) and calcium chloride on gelatin.

An absorbable spun cotton-like topical hemostat is taught by Shimuzu, et al. in U.S. Patent 5,679,372. This disclosure is directed to an absorbable dressing made of acetocollagen fibers which are innately adhesive to a bleeding surface. In a patent to Bell, et al, U.S. 5,800,372, a dressing made of microfibrillar collagen and a superabsorbant polymer provides both blood absorption and clotting inducement.

A previous U.S. patent 6,198,347 co-invented by James A. Paterson and J. A. Thompson, also co-inventors of the present case, teaches utilizing an improved ion exchange resin, preferably in the form of a styrene divinylbenzene copolymer which has been sulfonated. The collective teaching of making this prior art resin is to be found in an earlier patent to co-inventor, Patterson, U.S. 4,291,980. This manufacturing method disclosed in the '980 patent was based at least in part on the production of spherical beads comprised of copolymer styrene and divinylbenzene as taught in U.S. Patents 2,366,007 and 3,463,320. An improvement better adapting this resin to the present invention is in the form of substantially reduced cross-linking down to about 0.25%.